VERMONT
AGENCY OF AGRICULTURE, FOOD & MARKETS

Vermont Pesticide Usage Summary 2010-2019

The Agency of Agriculture is publishing the annual reports for pesticide usage data. The Agency has taken many steps to create these reports for the public and we hope you find them useful. A few notes about the data are below.

Data Determinations:

For the purposes of reporting the following treatment groups include these types of pest control:

Treatment Types	Description
Animal	Moles, vole control
Aquatic	Invasive vegetation/pest control (permitted); also includes sewer root control
Biocides / Disinfectants	Industrial water cooling systems, mold remediation, and commercial and industrial disinfectants
Birds	Starlings and pigeons (permitted)
Corn, Field, & Forage	Commodity crops; corn, soybeans, small grains, and grasses
Forestry	Vegetation management and forest insect pest control
General Pest Control	Residential and commercial structural pest (rodents, insects) control
Golf Courses	Vegetation management and turf pest control (permitted)
Greenhouse / Nursery	Plant propagation and Christmas tree production
Highway & Railway	Rights-of-way vegetation management
Lawn Care & Ornamentals	Commercial and residential landscaping
Mosquito	Outdoor treatments of larvacide and adulticide (excludes residential treatments)
Produce Production	Fruits and vegetable pest control
Utilities & Wood Treatment	Rights-of-way corridor vegetation management and wood pole preservation activities in the corridor

In order to calculate usage as consistently and accurately as possible the following determinations were made:

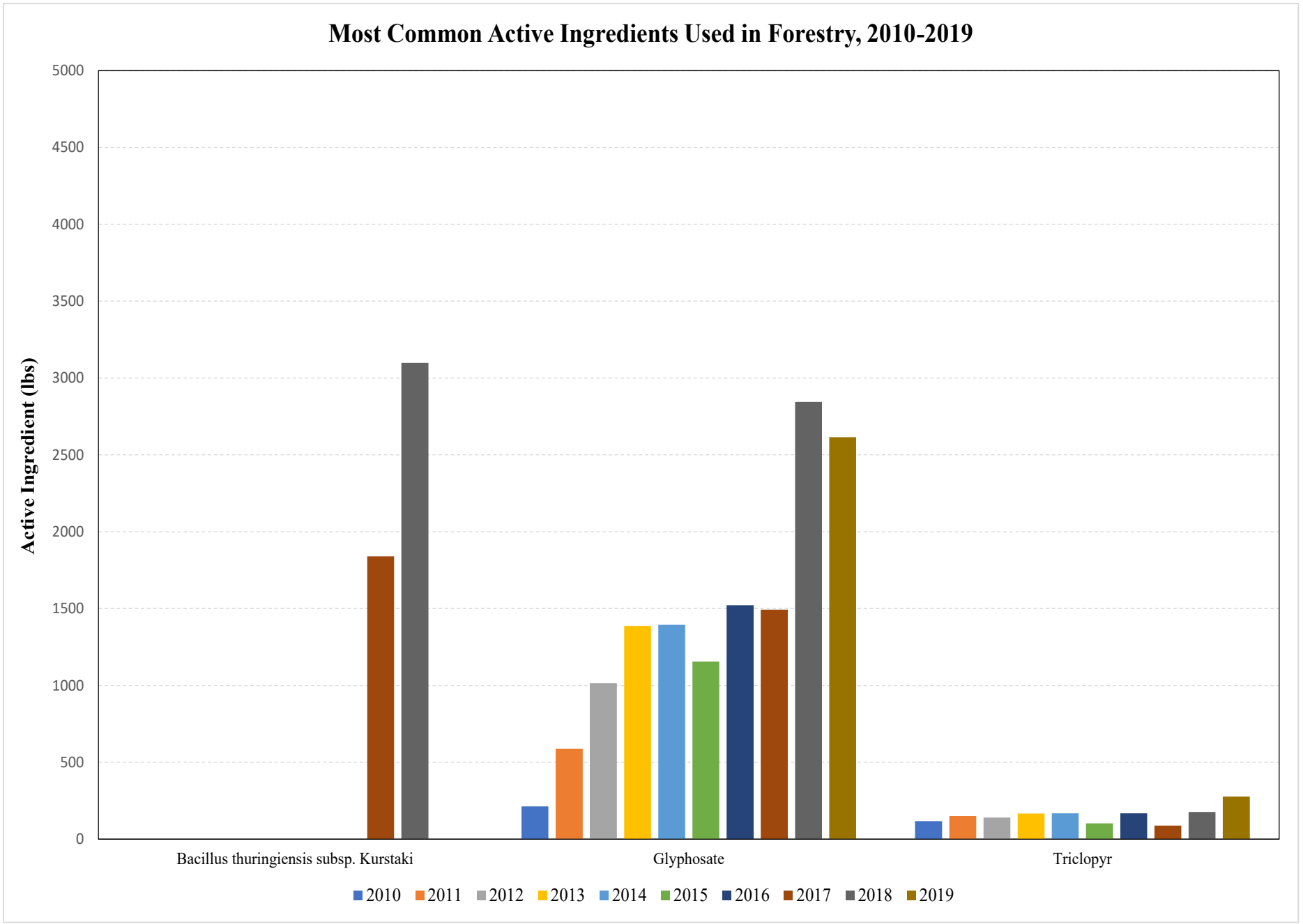
- Chemical names of active ingredients were translated to the most known name, this included synonyms, racemic mixtures/ enantiomers.
    - ◊ *For example, 2,4-dichlorophenoxyacetic acid was reported as 2,4-D; and o/s-metolachlor mixture was reported as metolachlor.*
- 2019 Chemical name updates:
    - ◊ Glufosinate-ammonium reported as Glufosinate ammonium
    - ◊ Thifensulfuron-methyl reported as Thifensulfuron
- All liquids were calculated at 10lbs to the gallon unless the volume weight was specified on the product label.
- The acid equivalents of an active ingredient were used when stated on the label
- Aerosols were considered as liquids -unless specified on product label
- Gels were considered solids -unless specified on product label
- Foggers were considered liquids -unless specified on product label
- Foams were considered solids -unless specified on product label
- When a single amount was listed for multiple counties the amount was divided equally between the counties listed.
- When multiple categories were listed the product was added to the first category listed

Data Notes and Limitations:

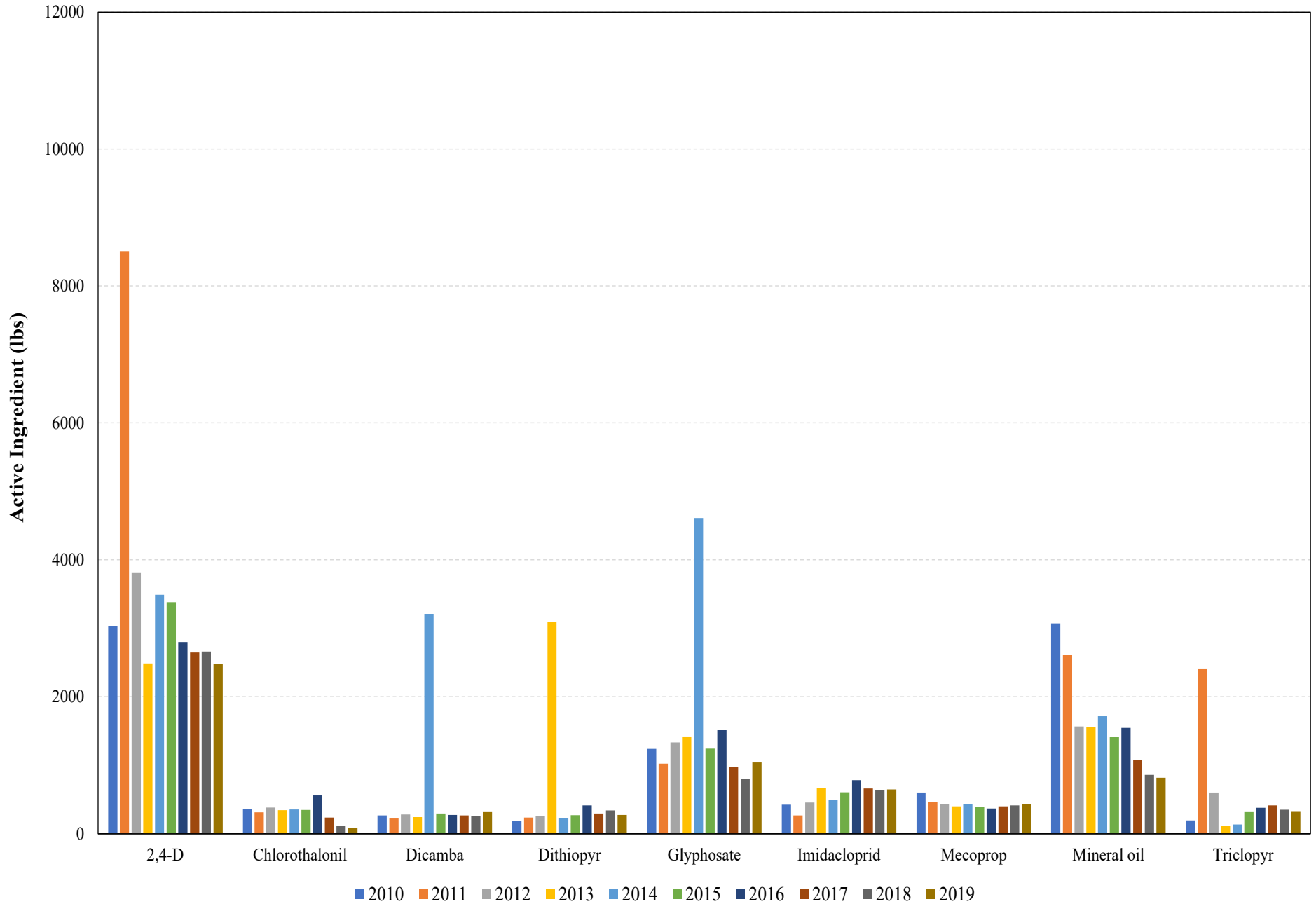
The data presented is self-reported by applicators commercial, non-commercial and government applicators at time of renewal. Renewals may be completed throughout a year and may occasionally result in edits to a year prior. As such, the Agency will publish an initial data set annually for the current reporting year, then account for any edits to the previous, with a final data set. In this data set we are presenting final data for 2018, and initial data for 2019. The Agency conducts announced and un-announced inspections to audit records.

Graphical Summaries:

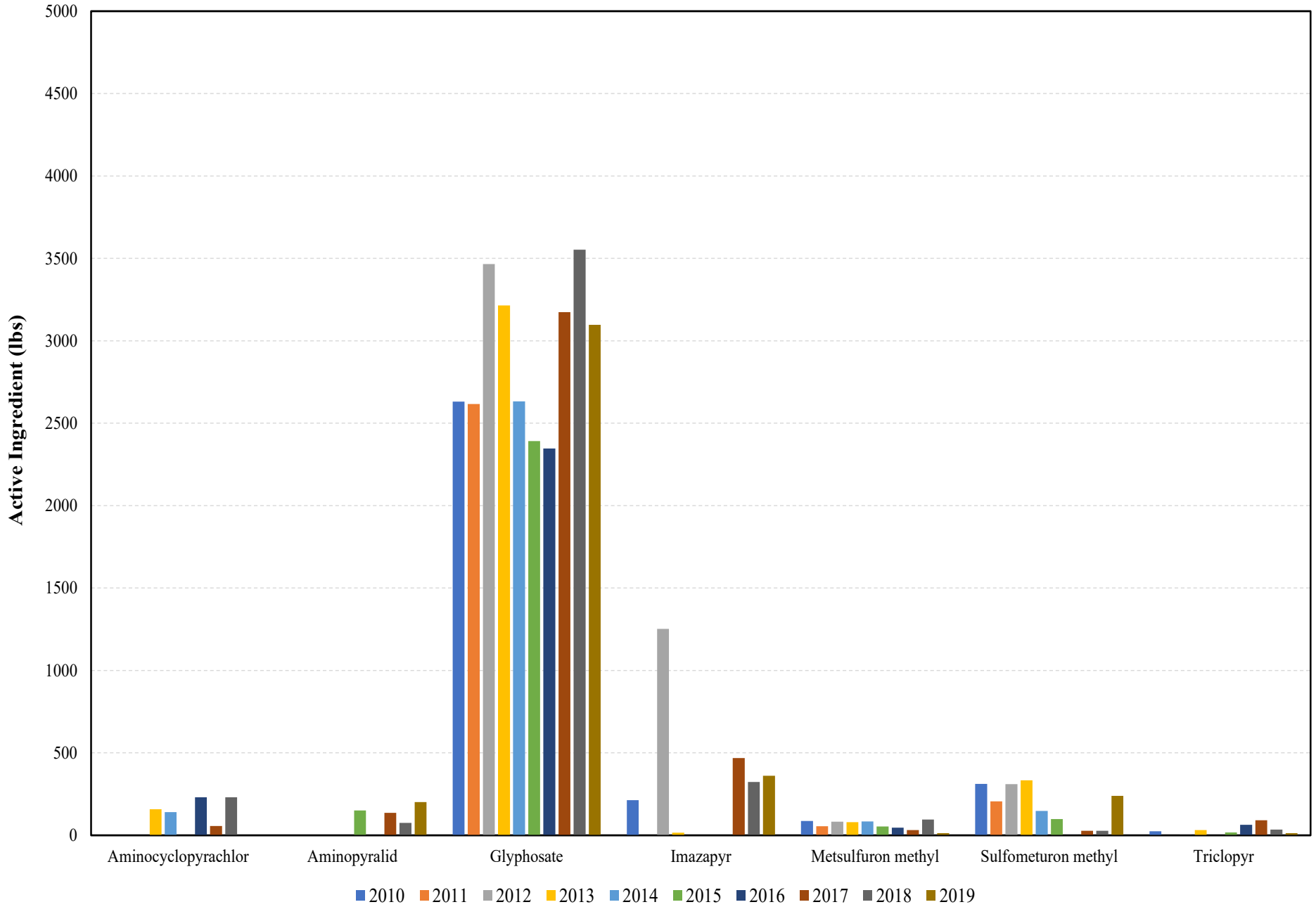
Most common active ingredients by treatment type, 2010-2019:



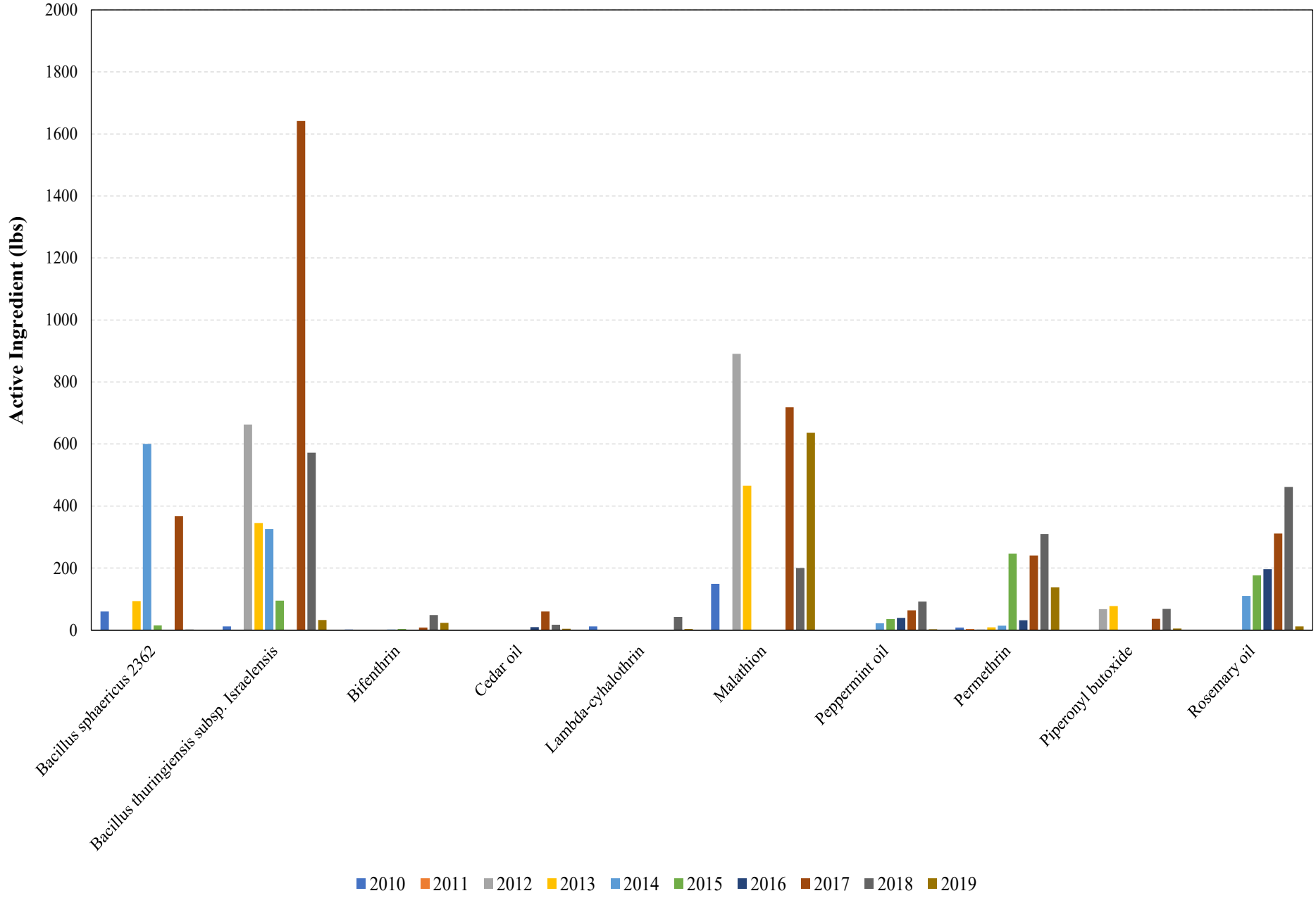
Most Common Active Ingredients Used in Landscaping, 2010-2019



Most Common Active Ingredients Used in Right-of-Ways, 2010-2019

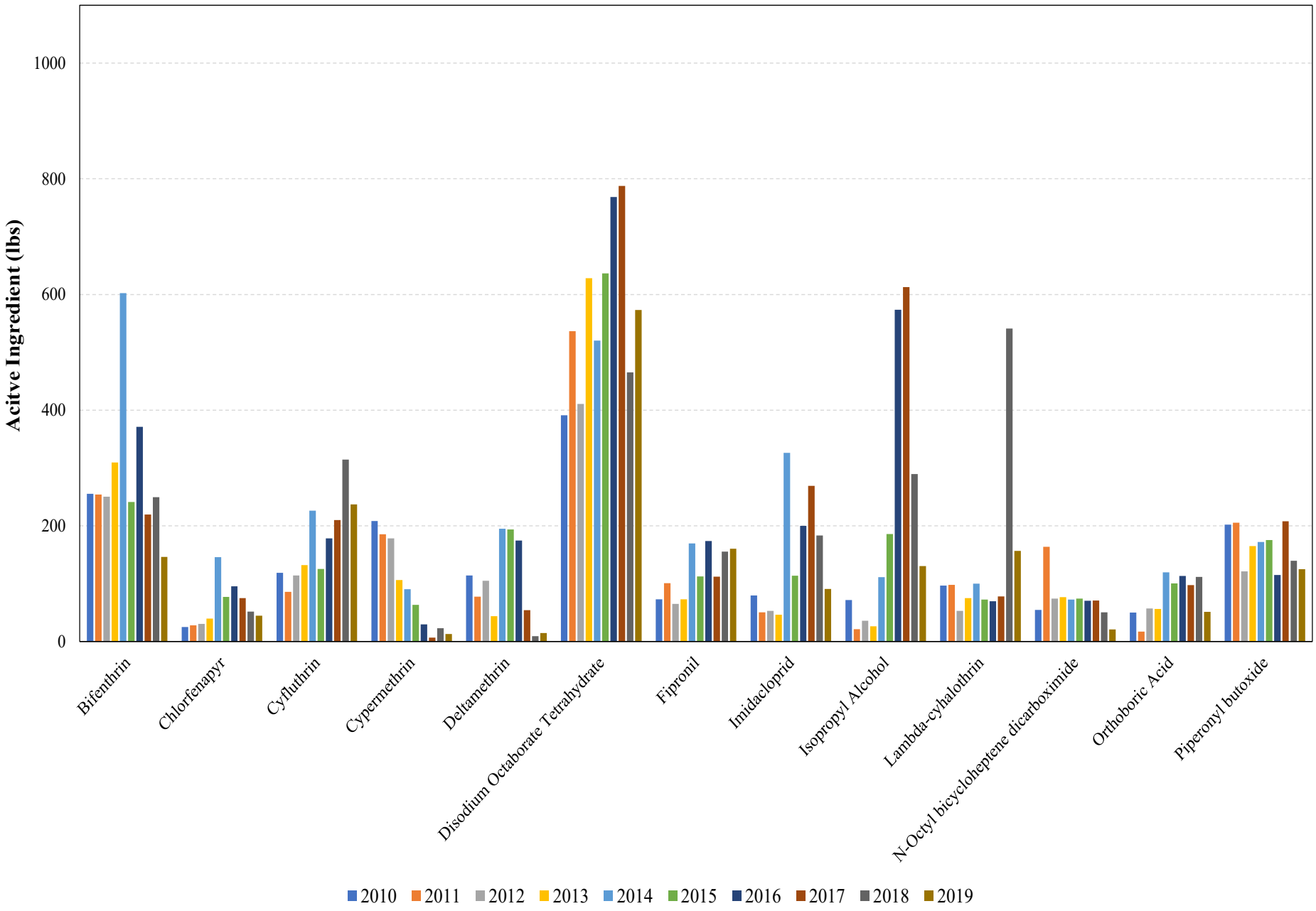


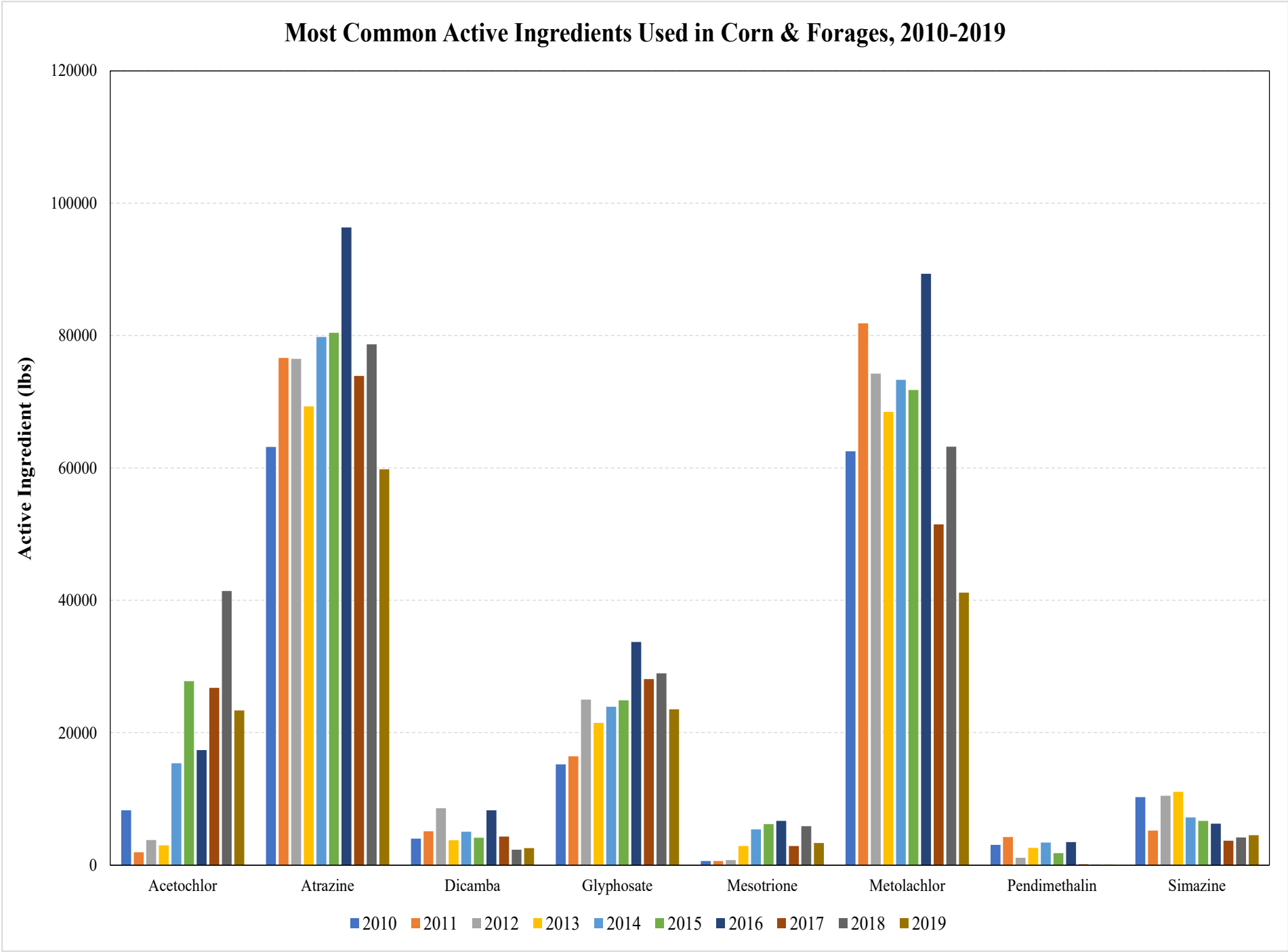
Most Common Active Ingredients Used in Mosquito Control, 2010-2019



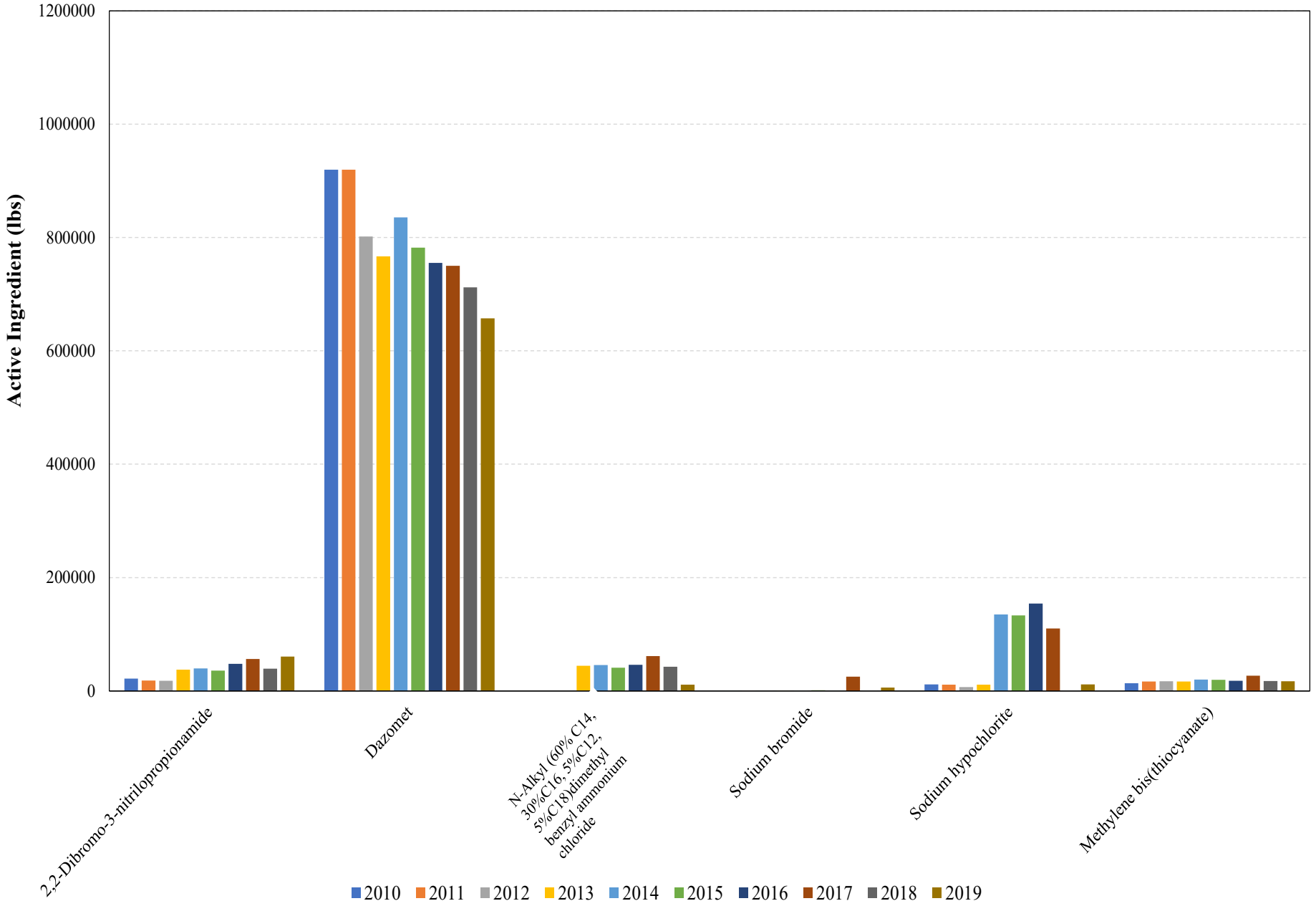
** Represents usage from applicators that solely treat for mosquitos. Other applicators that may treat for mosquitos are not included in this dataset.*

Most Common Active Ingredients Used in Structural Pest Control, 2010-2019

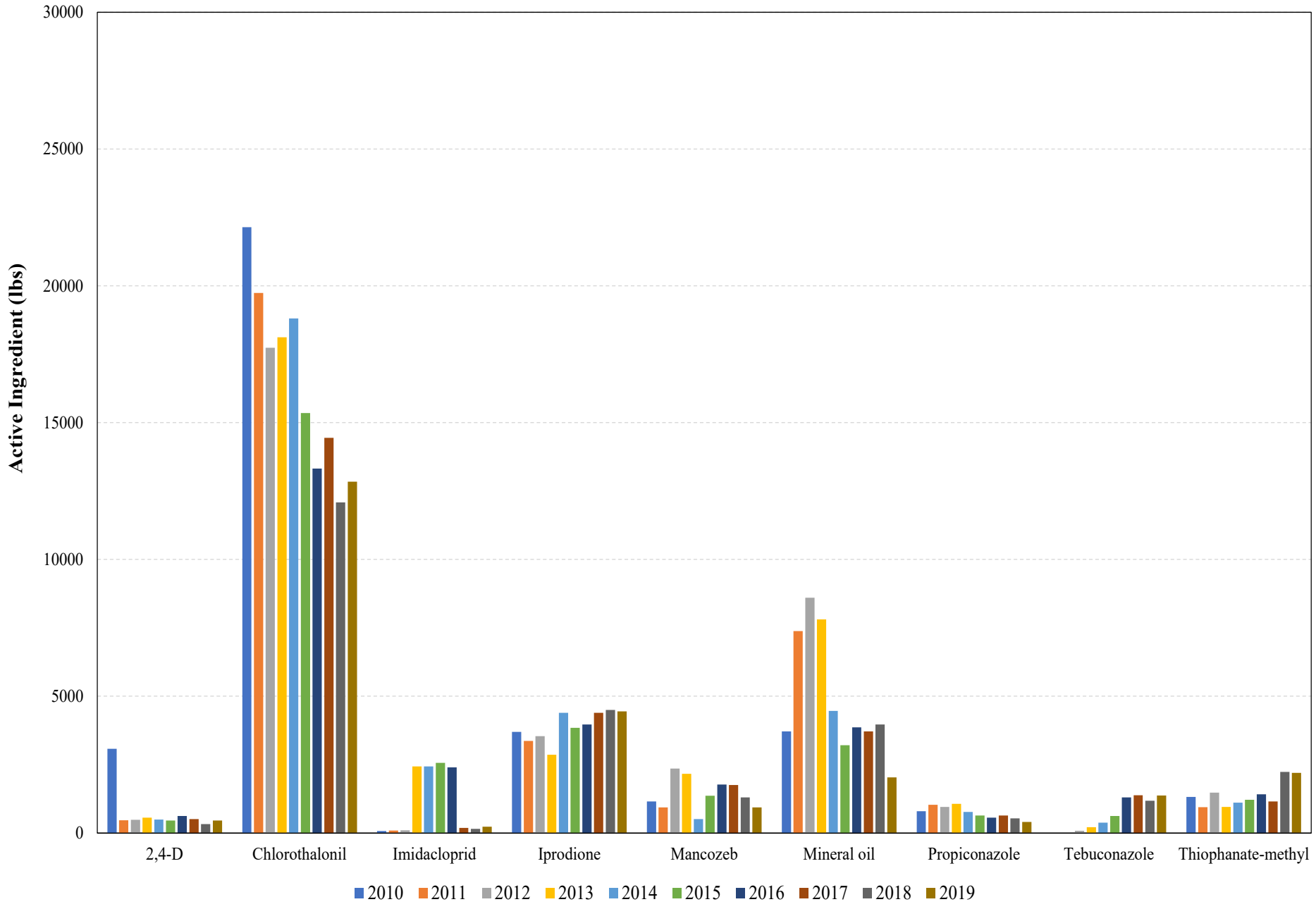



Most Common Active Ingredients Used in Corn & Forages, 2010-2019
Active Ingredient (lbs)
120000
100000
80000
60000
40000
20000
0
Acetochlor
Atrazine
Dicamba
Glyphosate
Mesotrione
Metolachlor
Pendimethalin
Simazine
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019

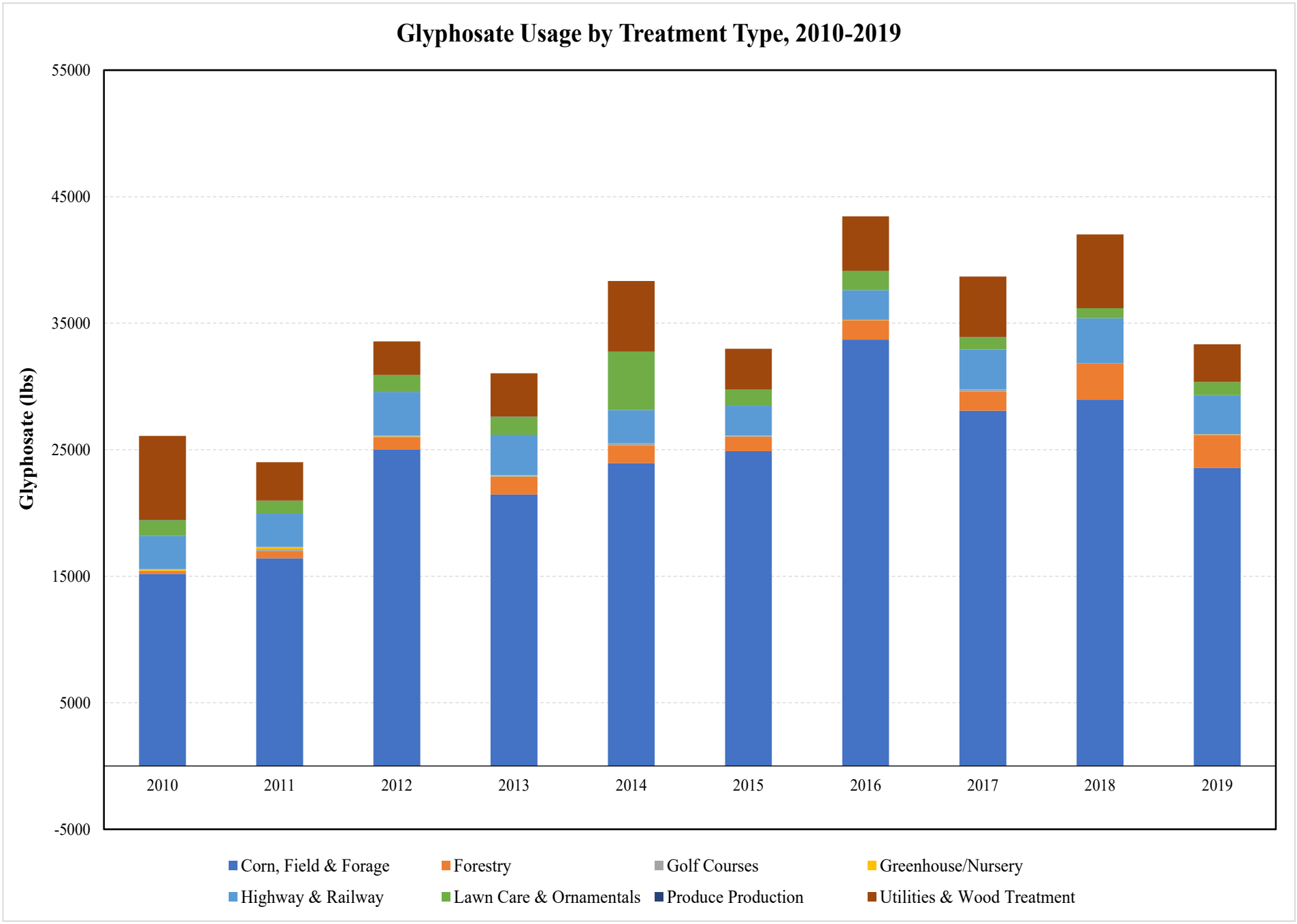
Most Common Active Ingredients Used in Biocides/Disinfectants, 2010-2019

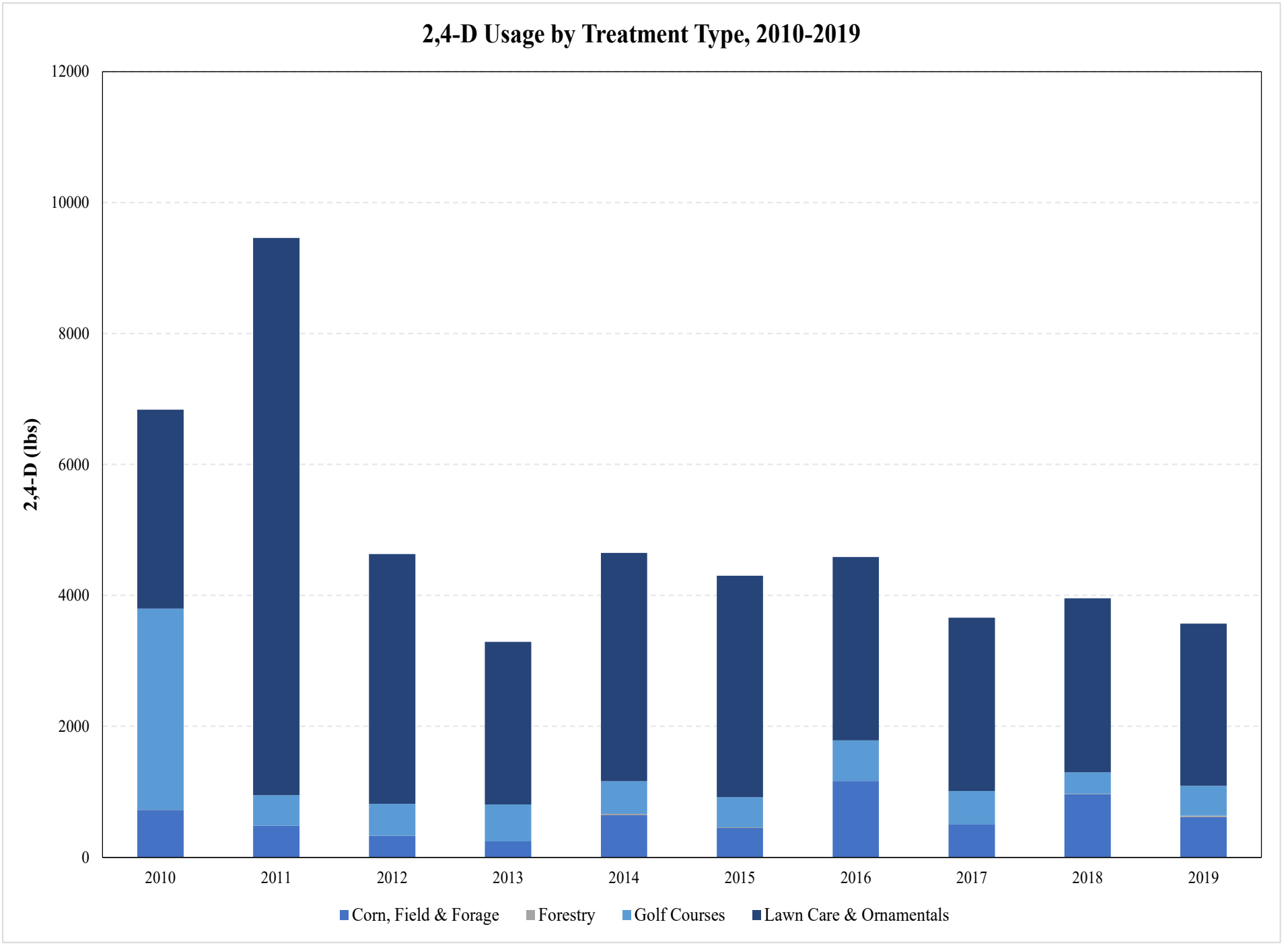


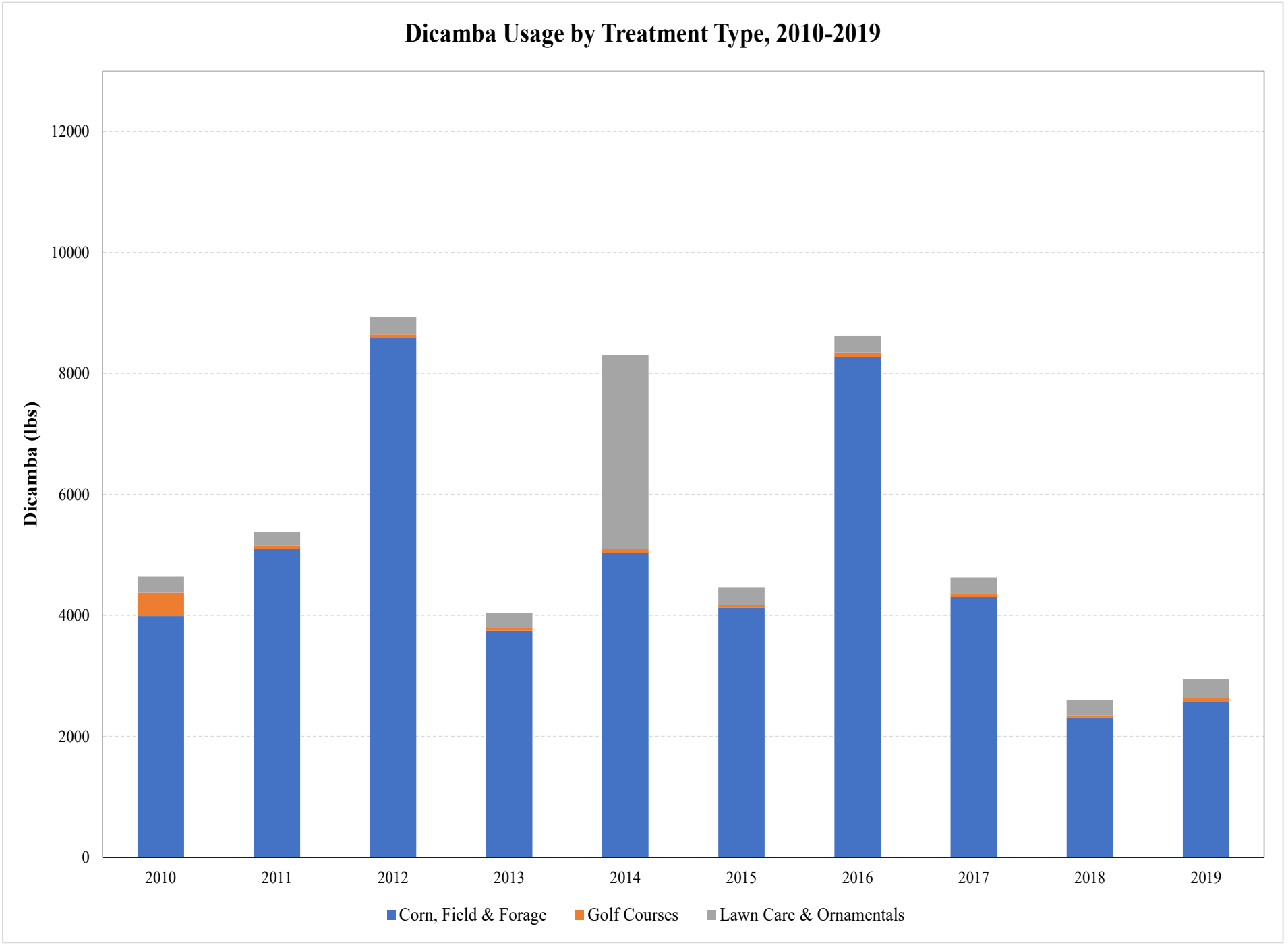
Most Common Active Ingredients Used on Golf Courses, 2010-2019



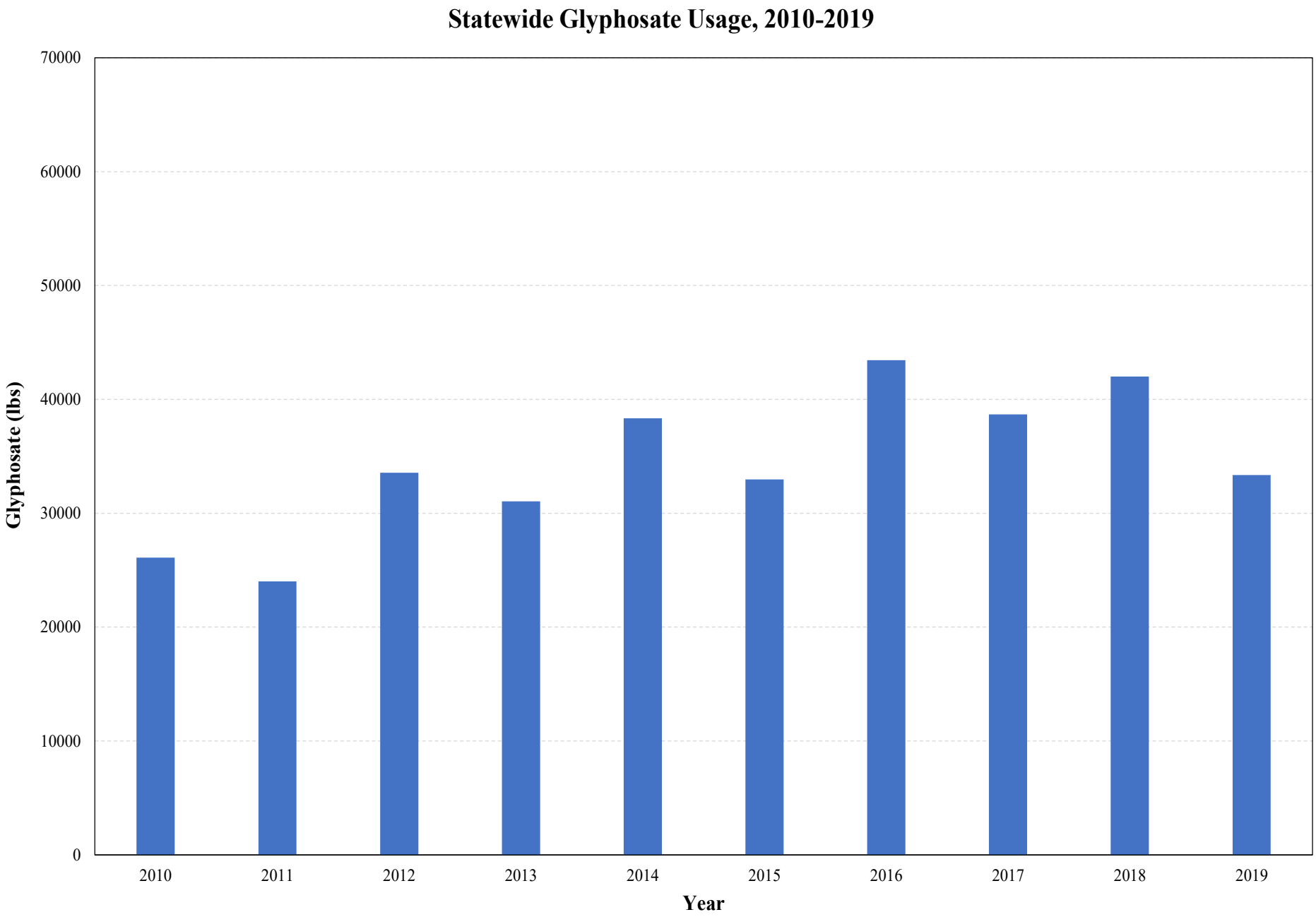
Active ingredient by treatment type, 2010-2019:



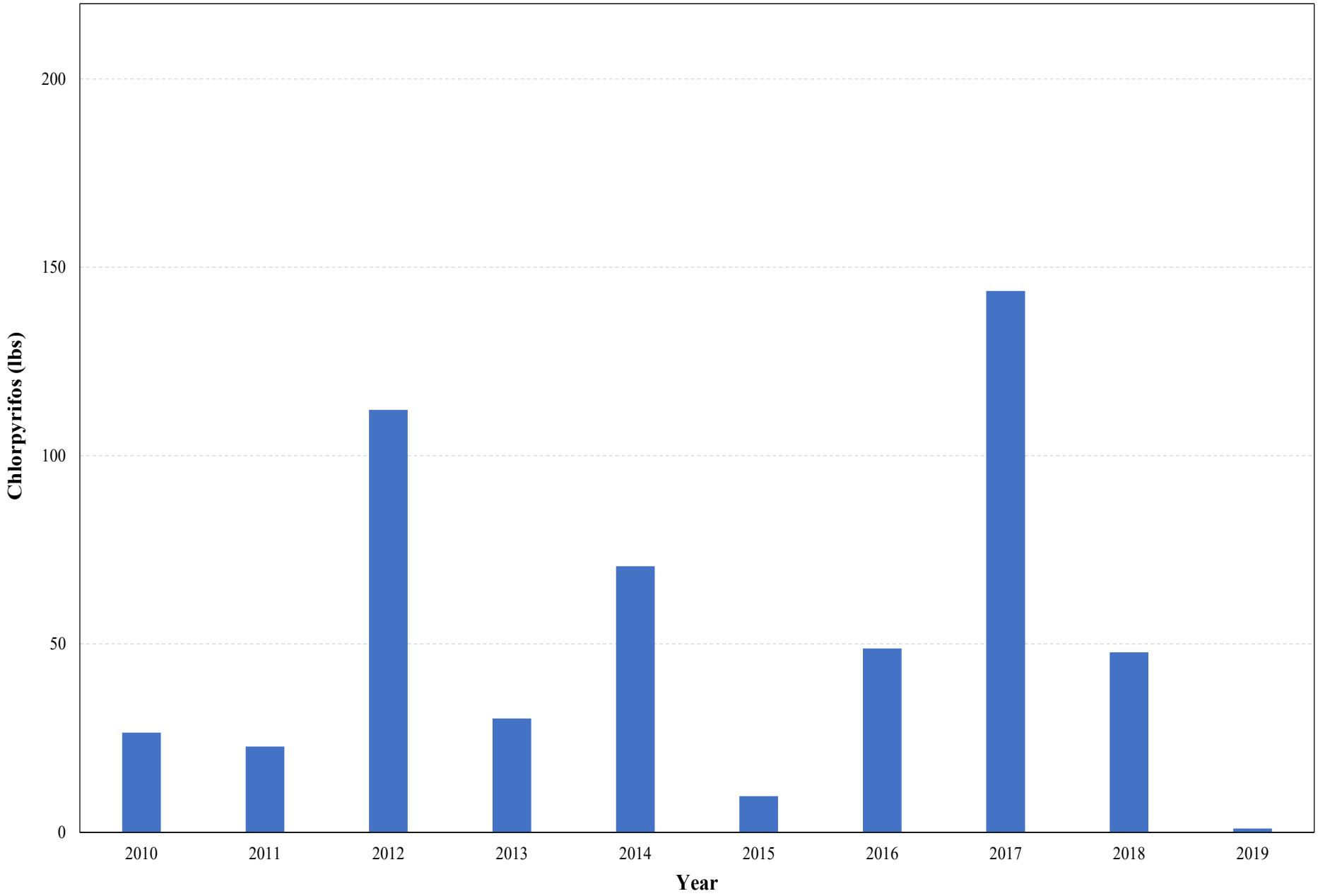

2,4-D Usage by Treatment Type, 2010-2019
12000
10000
8000
6000
4000
2000
0
2,4-D (lbs)
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Corn, Field & Forage
Forestry
Golf Courses
Lawn Care & Ornamentals


Dicamba Usage by Treatment Type, 2010-2019
Dicamba (lbs)
12000
10000
8000
6000
4000
2000
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Corn, Field & Forage
Golf Courses
Lawn Care & Ornamentals

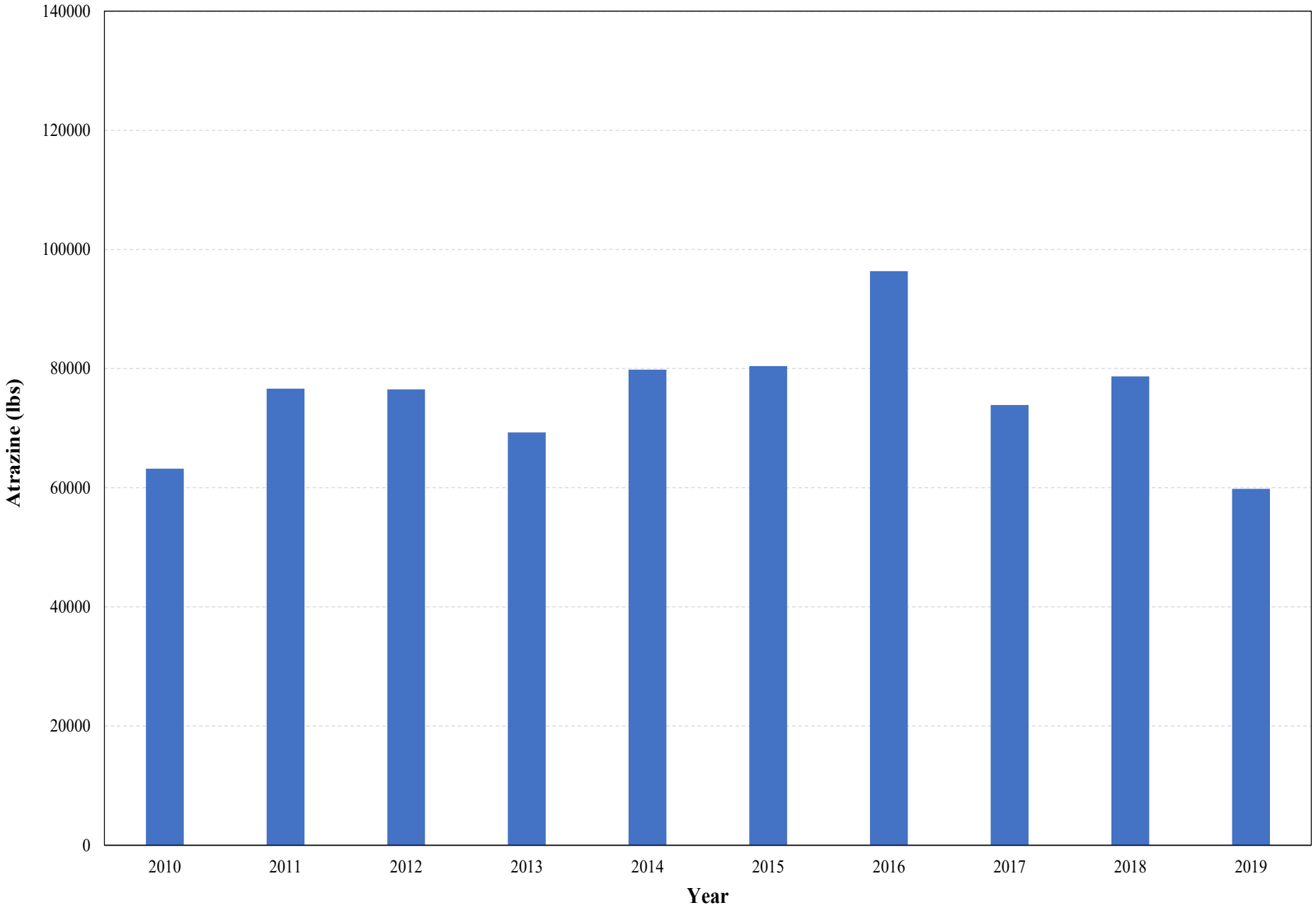
Statewide usage of active ingredient, 2010-2019:

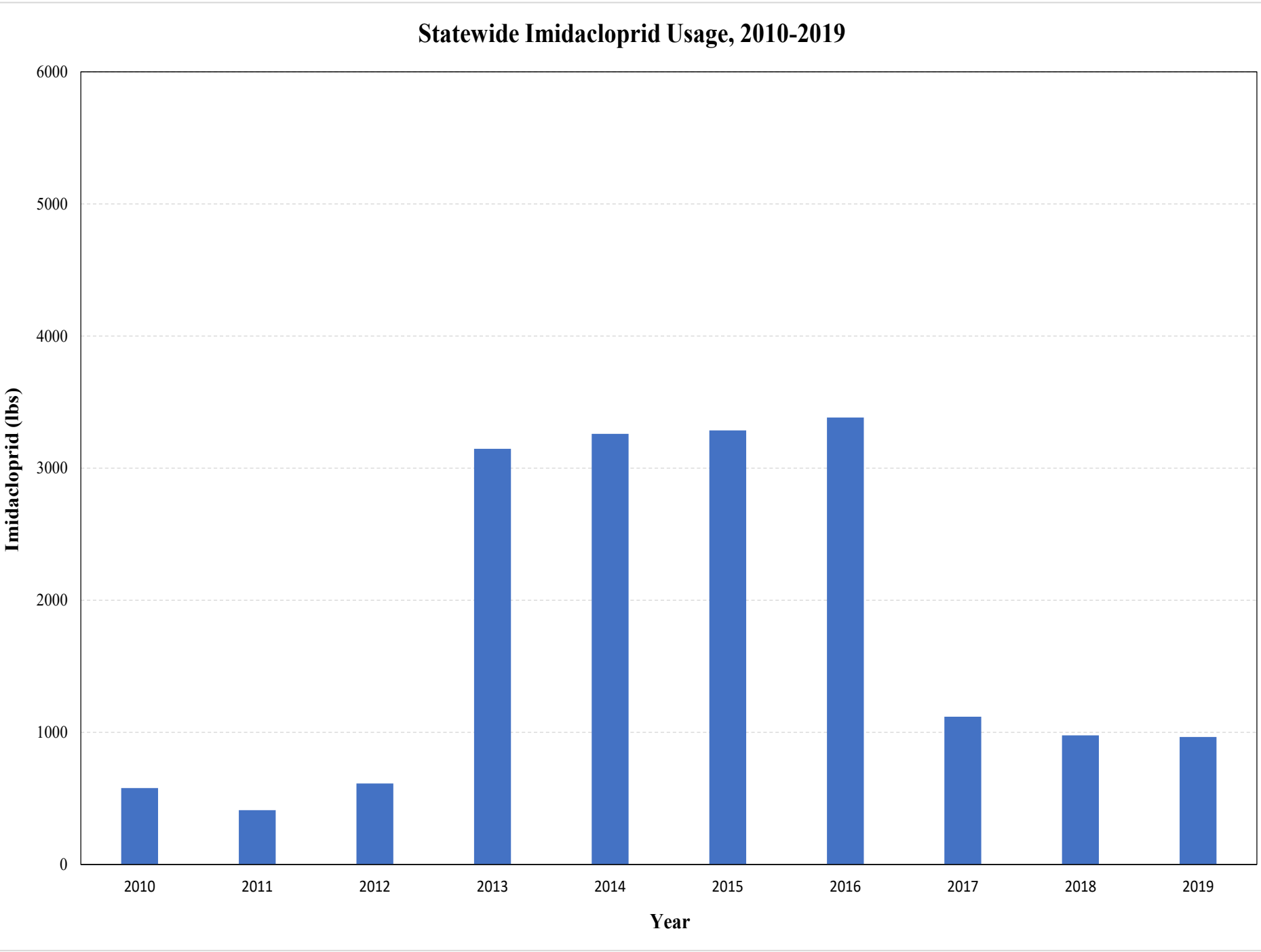


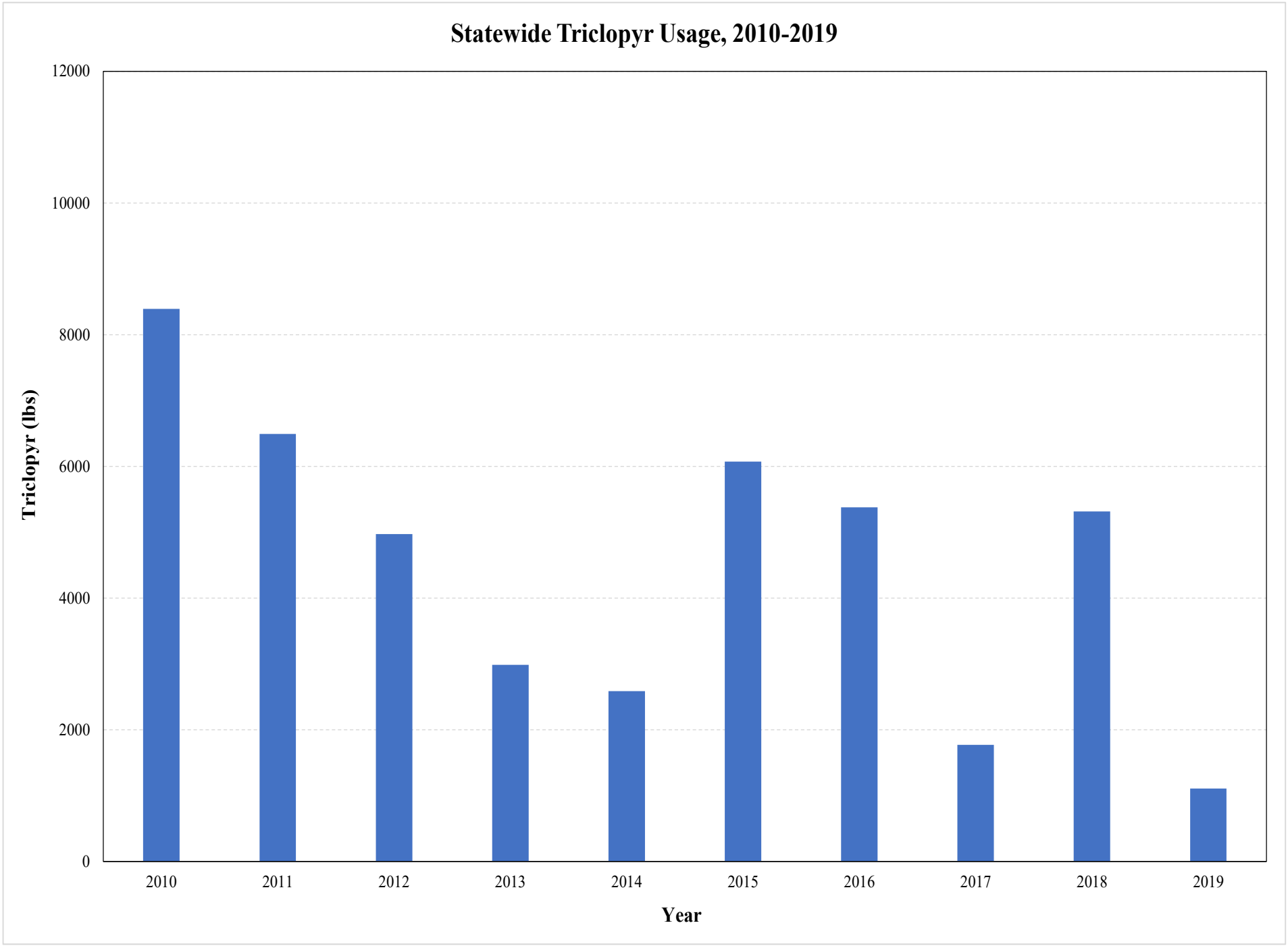
Statewide Chlorpyrifos Usage, 2010-2019

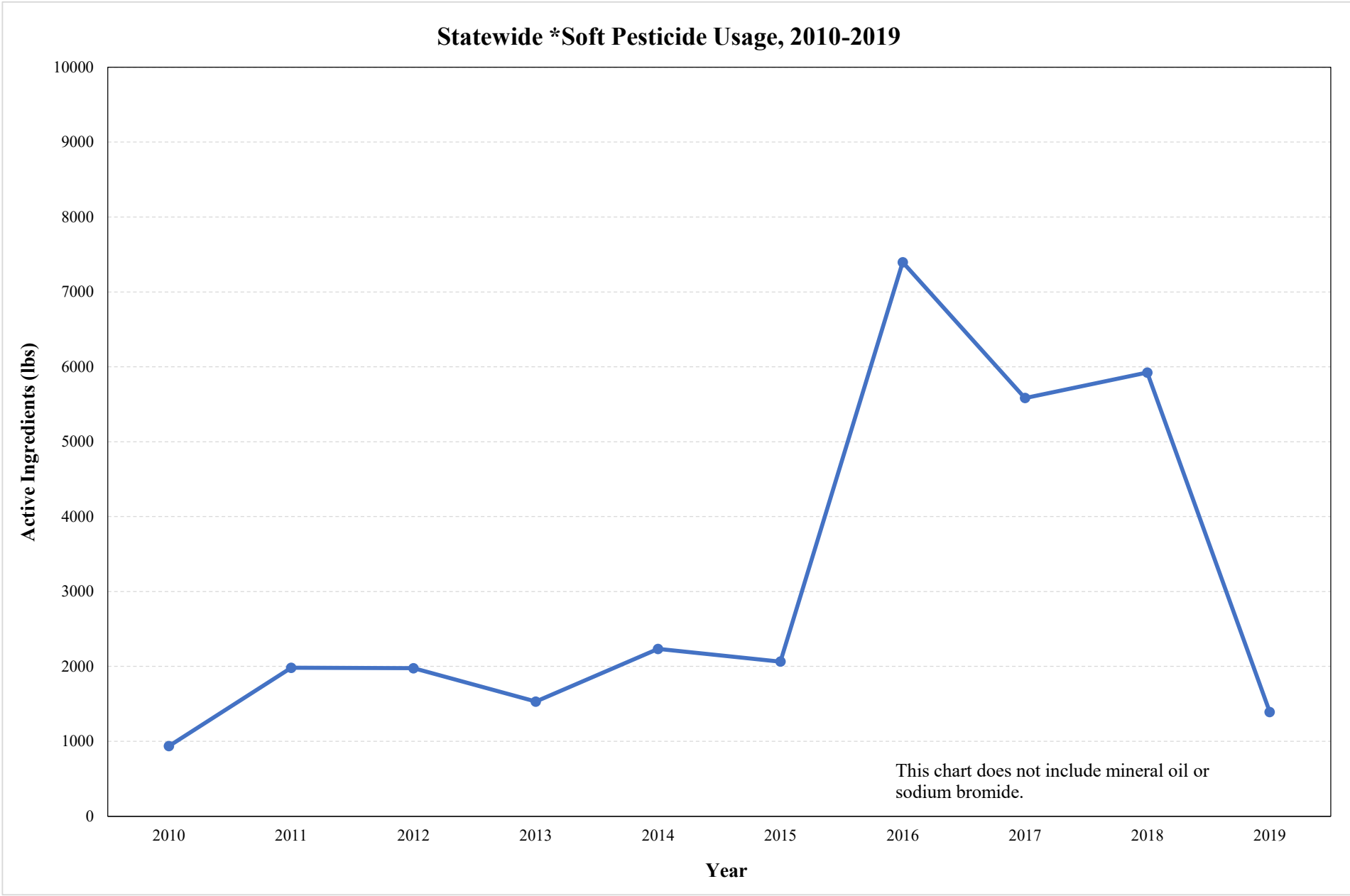


Statewide Atrazine Usage, 2010-2019




Statewide Imidacloprid Usage, 2010-2019
Imidacloprid (lbs)
6000
5000
4000
3000
2000
1000
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Year


Statewide Triclopyr Usage, 2010-2019
12000
10000
8000
6000
4000
2000
0
Triclopyr (lbs)
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Year



* *Soft = active ingredients of minimal risk, "25B products", or those registered as biopesticides*

** *The increased usage in 2016 was garlic.*